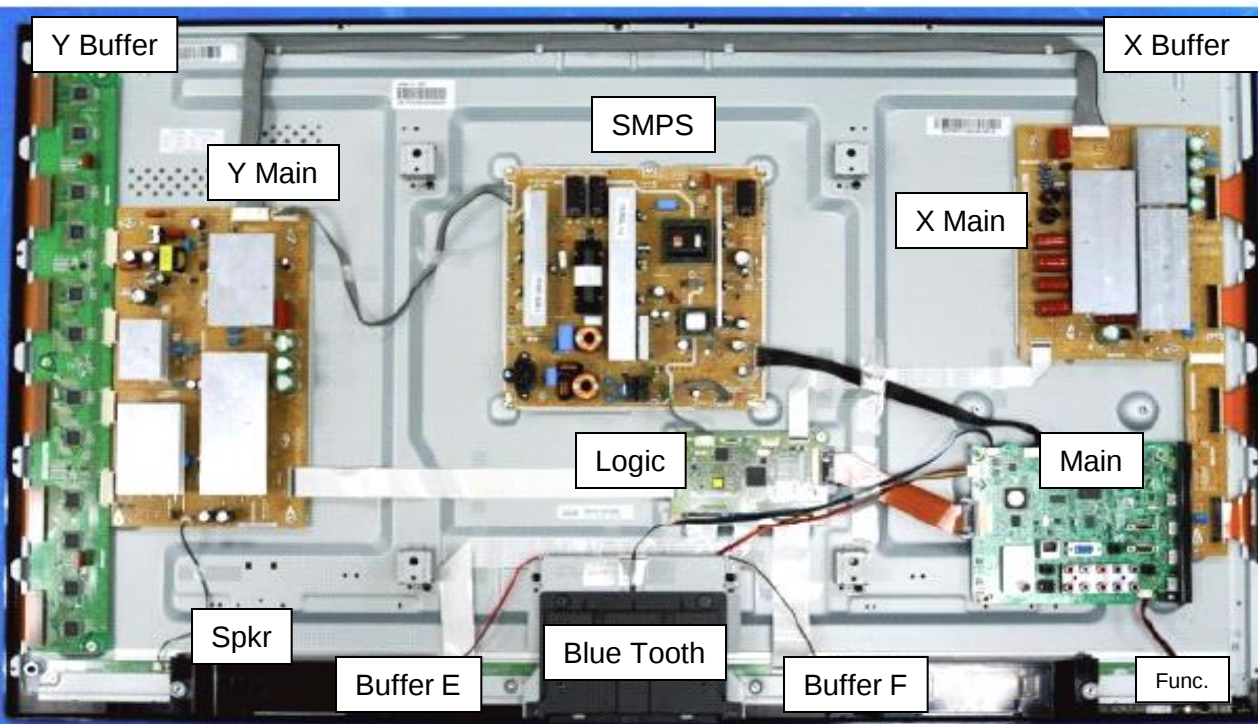




Service Bulletins:

ASC20120111002

Resolves: Flickering or brightness fluctuation during bright scenes issue.

Quick Parts List:

Version	Parts No	Short Description
ALL	BN44-00444A	SMPS
ALL	BN94-04354A	Main PCB
N101	BN96-16520A	Logic Main PCB
N203	BN96-16520A	Logic Main PCB
N104	BN96-16520A	Logic Main PCB
N202	BN96-16520A	Logic Main PCB
ALL	BN96-16521A	Buffer E
ALL	BN96-16522A	Buffer F
ALL	BN96-16523A	X Main
ALL	BN96-16524A	Y Main
N101	BN96-16525A	Buffer X
N203	BN96-16525A	Buffer X
N104	BN96-16525A	Buffer X
N202	BN96-16525A	Buffer X
ALL	BN96-16526A	Y Main Scan
ALL	BN96-16729C	Function & IR PCB
ALL	BN96-17107A	Bluetooth Module
N411	BN96-20515A	Logic Main PCB
ALL	6003-000337	Stand Screw
ALL	BN96-16775A	Front Cover
ALL	BN96-16783K	Rear Cover
ALL	BN96-16786A	Stand Guide
ALL	BN96-16847B	Stand Base
ALL	BN96-18195A	Stand Guide Neck
N101	3903-000552	Power Cord
ALL	BN40-00213A	Tuner
ALL	BN96-18071C	Speaker
ALL	BN96-18130E	LVDS Cable
ALL	4301-000121	Battery
ALL	AA59-00482A	Remote

HELP: 1-888-751-4086 (Tech Support)

GSPN

http://service.samsungportal.com/EP/web/portal/jsp/EP_Default1.jsp

PLUS ONE

<http://my.plus1solutions.net/clientPortals/samsung>

HOT TIPS

-Power On Problems: (pg. 3)

-Video Problems: (pg. 4)

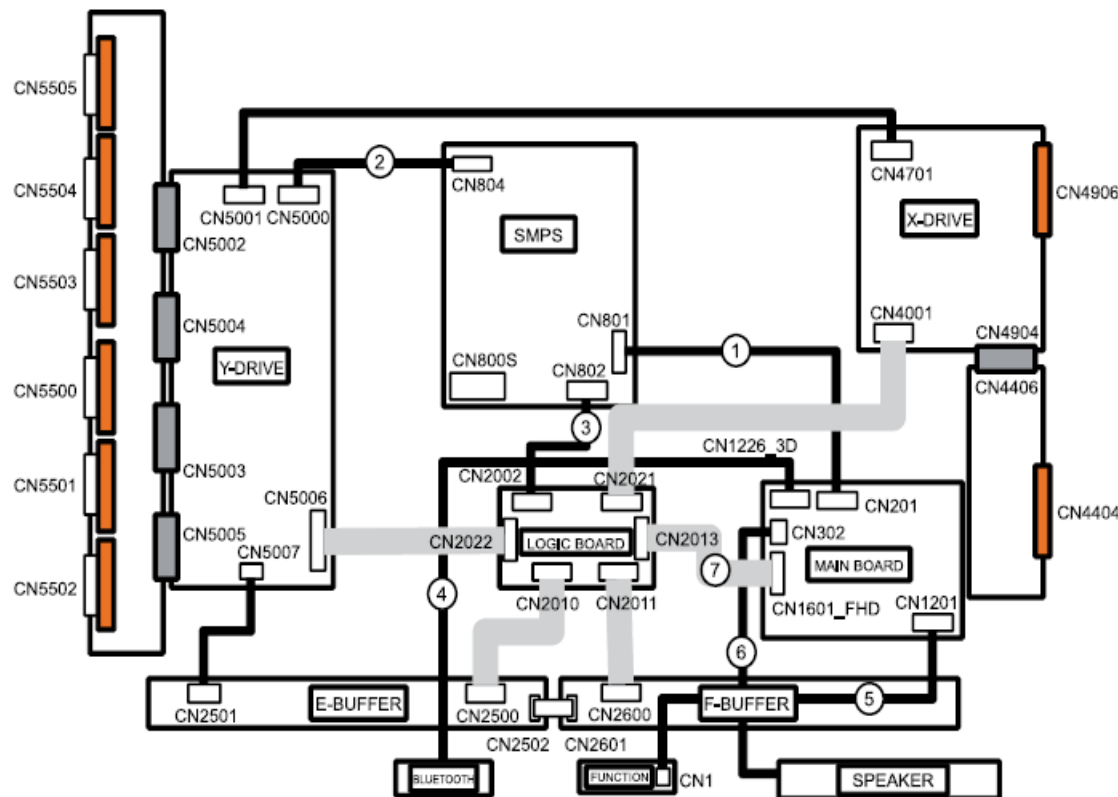
Latest Firmware:

PDP TV for D490~D550 T-MST4AUSC C1018.1 Plasma Model Code:

PN43D490A1DXZA / PN51D490A1DXZA /
PN51D490A1DXZC / PN51D495A6DXZA /
PN51D530A3FXZA / PN51D530A3FXZC /
PN51D550C1FXZA / PN59D530A3FXZA /
PN59D530A3FXZC / PN59D550C1FXZA /
PN59D550C1FXZC / PN59D550C1RXAA /
PN64D550C1FXZA / PN64D550C1FXZC

Date: 01.04.2012

Description: Firmware for picture improvement on SD picture



(1) CN801 (SMPS) ↔ CN201 (Main Board)			
Pin No. (SMPS)	Signal (SMPS)	Pin No. (Main Board)	Signal (Main Board)
1	PS-ON	1	SW_POWER
2	STBY	2	ASV_PW
3	GND	3	DGND
4	D15V	4	B15V_PW
5	GND	5	DGND
6	GND	6	DGND
7	D5.3V	7	B5V_PW
8	D5.3V	8	B5V_PW
9	GND	9	DGND
10	D15V	10	B15V_PW
11	D15V	11	B15V_PW
12	D5.3V	12	B5V_PW

(2) 51" only : CN804 (SMPS) ↔ CN5000 (Y Board) 59"/64" only : CN804 (SMPS) ↔ CN5002 (Y Board)			
Pin No. (SMPS)	Signal (SMPS)	Pin No. (Y Board)	Signal (Y Board)
1	208V	1	V _s
2	208V	2	V _s
3	GND	3	GND
4	D15V	4	V _g (15V)
5	GND	5	GND
6	VA	6	V _a

Power On Sequence:

1. STBY 5V (CN801, #2, 5v)
2. PS_ON (CN801, #1, 3.3v-0v)
3. VS_ON (CN802, #6, 0-3.3v)
4. Panel should illuminate briefly

(3) 51" only : CN802 (SMPS) ↔ CN2002 (Logic Board) 59"/64" only : CN802 (SMPS) ↔ CN2000 (Logic Board)			
Pin No. (SMPS)	Signal (SMPS)	Pin No. (Logic Board)	Signal (Logic Board)
1	D5.3V	1	5.3V
2	D5.3V	2	5.3V
3	GND	3	GND
4	VS-SIGNAL	4	GND
5	PS-ON	5	PS_ON
6	VS-ON	6	VS_ON

Wiring Diagram – Connectors (Cont'd)

(4) CN1226D_3D (Main Board) ↔ BLUETOOTH			
Pin No. (Main Board)	Signal (Main Board)	Pin No. (BLUETOOTH)	Signal (BLUETOOTH)
1	FRAME_SYNC_IN	1	Reset_Module
2	FRAME_SYNC_OUT	2	VCC 5V
3	DGND	3	USB D-(BT)
4	USB_BT_DP	4	USB D+(BT)
5	USB_BT_DM	5	GND
6	A5V_PM	6	3D Sync Out
7	FUNC_INTR	7	3D Sync In
8	POWER_DET	8	

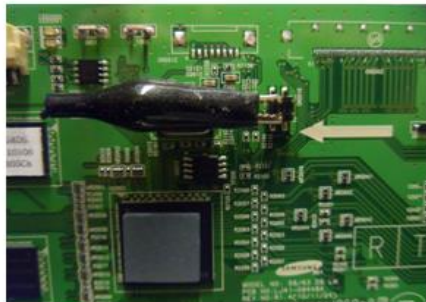
(5) CN1201 (Main Board) ↔ CN1 (FUNCTION)			
Pin No. (Main Board)	Signal (Main Board)	Pin No. (FUNCTION)	Signal (FUNCTION)
1	IR	1	IR
2	FUNC_GND	2	GND
3	FUNC_A3.3V	3	A3.3V
4	MSCT	4	SCL
5	MSDA	5	SDA
6	FUNC_INTR	6	INT
7	LED_STR	7	LED

(6) CN302 (Main Board) ↔ SPEAKER	
Pin No. (Main Board)	Signal (Main Board)
1	R+_OUT
2	R-_OUT
3	L+_OUT
4	L-_OUT

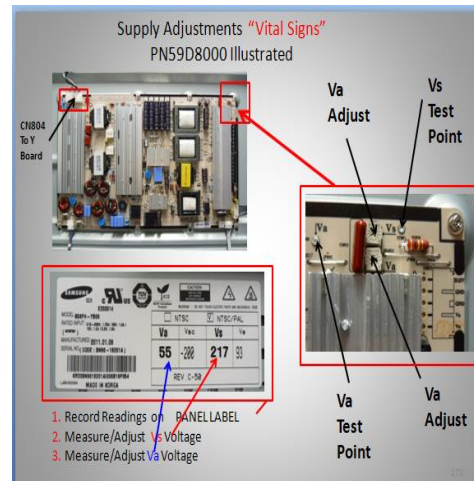
“Troubleshooting”

Activating Power & Logic Board Test Patterns without Main Board:

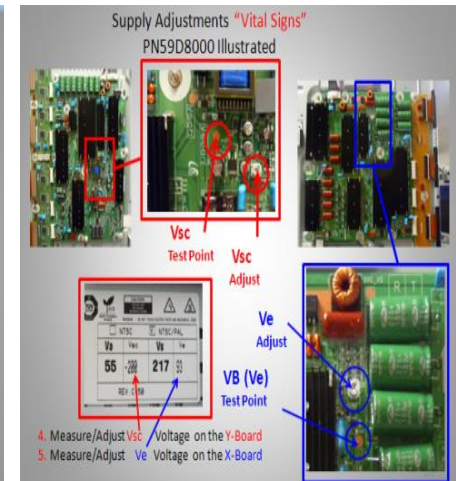
1. Remove Power Cord to Panel
2. Short Highest 2 Pin #s on Logic Board Test Jig (Can be 4 Pin or 6 Pin)



3. Remove Power Connector at Main Board (keeping connection to SMPS)
4. Short “Power On” Pin to Circuit Ground on Power Connector to SMPS.
5. Connect Power Cord to Panel



Sample



Power Supply Trouble Shooting Notes:

2010/2011 models

Will not be run with the “X” or “Y” main disconnected. The SMPS will shut down immediately. However if a meter is first connected to the test point when power is applied it will read the correct voltage briefly before shutting down. (You have enough time to check key voltages)

CAUTION: Do not reconnect any connectors to SMPS or Y/X Boards until power has been turned off long enough for Vs to drop below 10V or damage will occur to X or Y Boards.

SMPS Over Current Protection

If a short circuit occurs on either the VS or VA voltage lines, the SMPS stops operating, but should not fail. When the short circuit is removed from the source line, the Power Supply will operate normally again.

Many SMPS Supplies are replaced needlessly!

“VITAL SIGNS”

When troubleshooting, It's very important to first check **Vs, Va, Vsc & Ve**. If **Vs** is missing (0V), disconnect power and check for short. Use ohm meter to measure resistance while disconnecting Y-Board & X-Board supply feeds one at a time.

Turn Power On and Test SMPS with shorted connector removed for correct Vs voltage verification. (It may only come up briefly but to full level). Be careful not to reconnect power connectors until Vs falls below 10V.

If **Va** is low or missing, disconnect power connectors to Address Boards and Check to see if SMPS Supply is restored. (Note Va feed normally passes through the Y-Drive to the Address Boards (Logic Buffer Boards). If **Vsc** is low or missing and Vs is OK, the failure is with the **Y-Board** since the Y-Board generates the Vsc voltage from the supplied Vs.

If **Ve** is low or missing and Vs is OK, the failure is with the **X-Board** since the Ve is generated by the X-Board from the supplied Vs. (Please note: In some rare cases the Ve is generated by the Y-Board fed to the X-Board.)

Other SMPS Voltages:

Check Low Voltage feeds to the Main Board and other supplied Assemblies.

TROUBLESHOOTING VIDEO PROBLEMS

1. Verify Video Operation

- Customer Picture Test** (if available)
- “Display”** (If display is OK source is suspected)
- Substitute with known good Source
(**external DVD or Signal Generator**)

2. Using Test Patterns in Service Mode

- ENTERING SERVICE MODE -

Customer Remote:

- Power off
- Mute, 182, Power

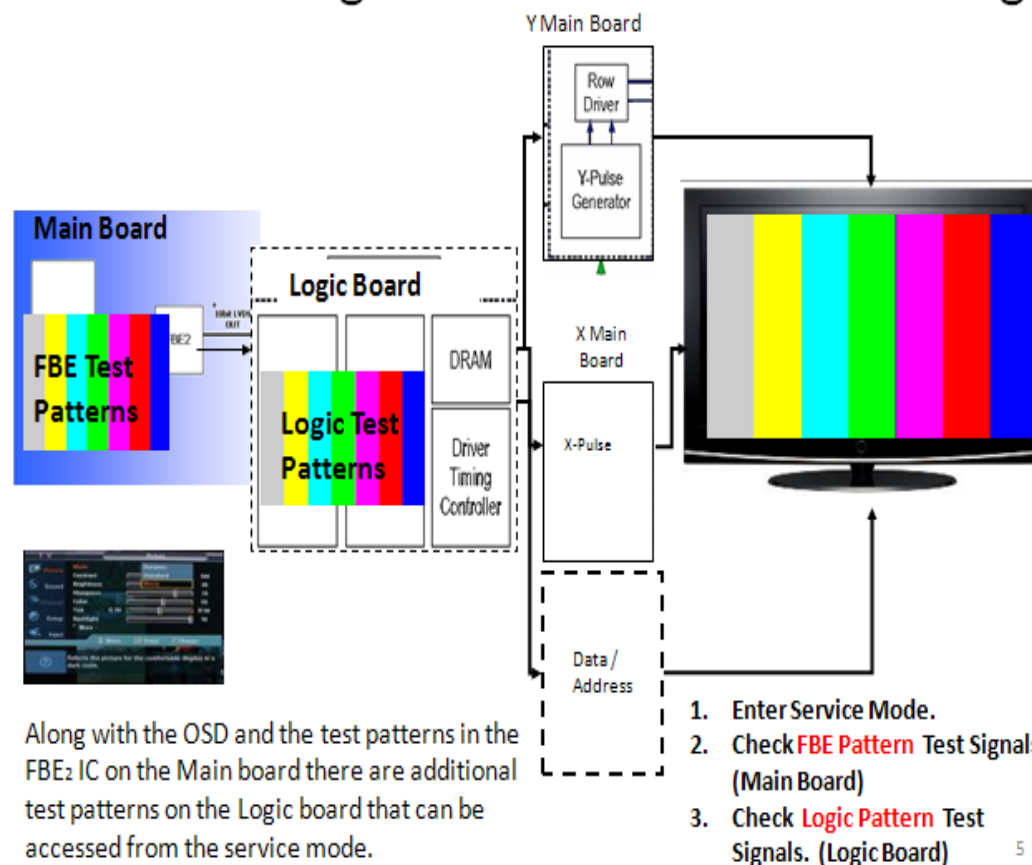
Service Remote:

- Power On
- Info, Test

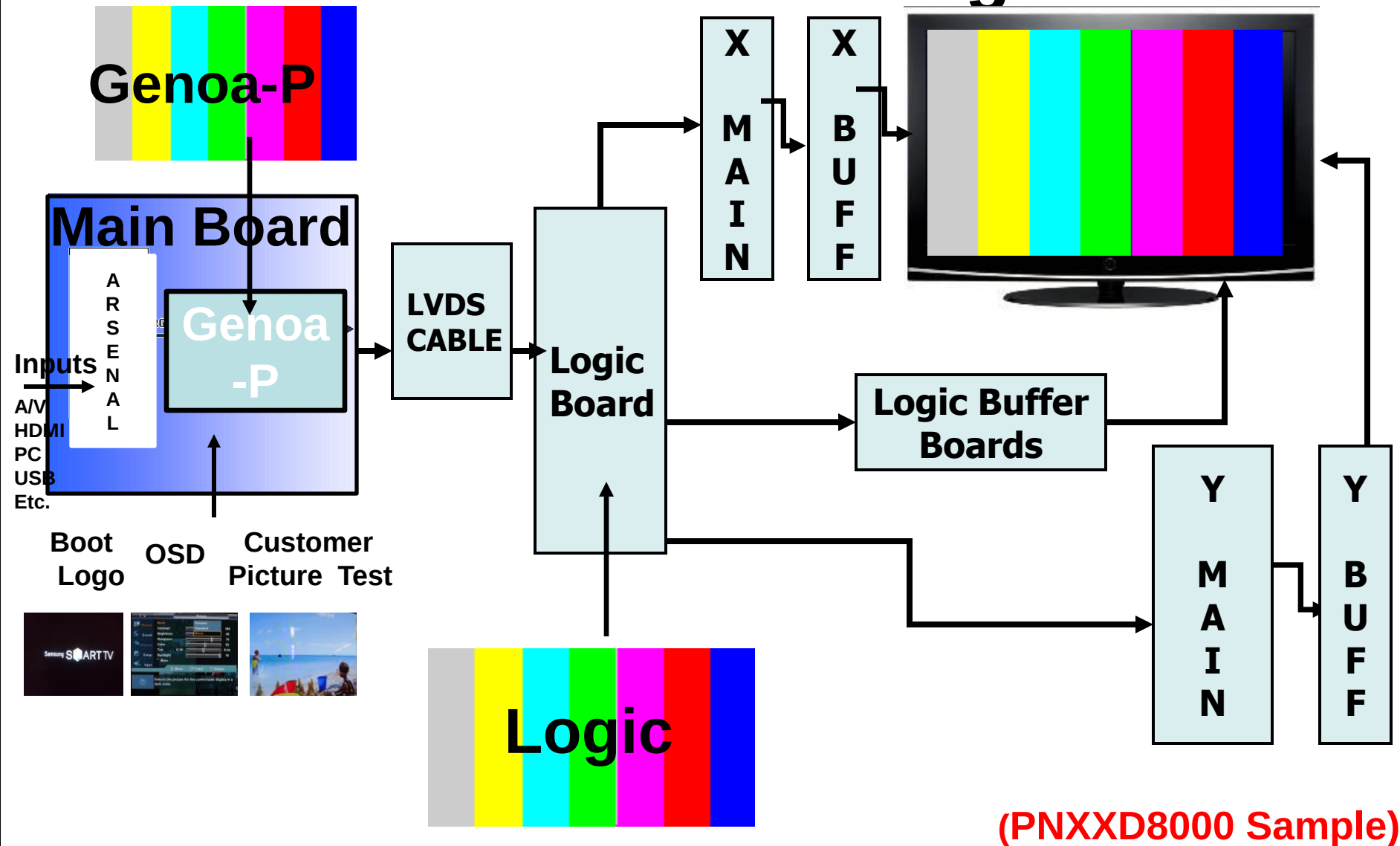
3. Determine cause

- If Logic pattern is NG; Logic board, Logic buffers or Panel are suspect.
- If FBE patterns is NG and Logic is OK; Main or LVDS cable are suspect.
- If both are OK it is likely a source issue.

2010 PDP Signal Path for Troubleshooting



2011 PDP Signal Path for Troubleshooting



(PNXXD8000 Sample)

ALIGNMENTS & OPTION BYTES :

1. Check/Adj. VS, VA, VE, & VSC according to Panel Label and Diffusion test. (see **bulletins** for any special notes before making changes)
2. Check/Set Option Bytes:
 - ENTER SERVICE MODE -
 - a) Customer Remote: Power off; Mute, 182, Power On
 - b) Service Remote: Power On; Info, Test

Model Code	PN51D550C1FXZA						
Side Label	Option						
	Type	Model	Tuner	Light Effect	Ch Table	Country	Front Color
N101	51DFHcD	PD550	SI_ATC	N/A	SAMEX		P-T-R-BK
N202	51DFHcD	PD550	SI_ATC	N/A	SAMEX		P-T-R-BK
N203	51DFHcD	PD550	SI_ATC	N/A	SAMEX		P-T-R-BK
N104	51DFHcD	PD550	SI_ATC	N/A	SAMEX		P-T-R-BK
I105	51DFHcD	PD550	SI_ATC	N/A	SAMEX		P-T-R-BK
I106	51DFHcD	PD550	SI_ATC	N/A	SAMEX		P-T-R-BK
I407	51DFHcD	PD550	SI_ATC	N/A	SAMEX		P-T-R-BK
I408	51DFHcD	PD550	SI_ATC	N/A	SAMEX		P-T-R-BK

DIFFUSION TEST/ADJ. (cell miss-firing, older units)

- Allow the unit to warm up 15 to 20 minutes
- Access the Burn Protect Sig. Pattern in Cust. Menu.
- Adjust the Vs volts until screen errors are gone in both dark and bright areas.
- Adjust the Vs volts within +/- 10V on the panel label.



SPECIAL NOTES:

See bulletin “Red Dots” for correction/adjustments for this model.